

The Validity of the Generic Name *Ctenopteris*

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Since the adoption by E. B. Copeland (1947, p. 218) of the generic name *Ctenopteris* Blume for a group of species that had generally been referred previously to *Polypodium*, this name *Ctenopteris* has been rather widely adopted, mostly without a critical evaluation of its validity. Copeland was aware of some of the difficulties, but chose to adopt the name anyway.

The name first appears in Blume's *Flora Javae* 2: 132. 1828 [1829] under the genus *Polypodium* L., which is divided into two subgroups (of unspecified category) called "a. *Polypodia vera*" and "b. *Polypodia spuria*." The latter is subdivided into four sections (unnamed), the second of which is characterized as follows:

"2. Filices venis lateralibus simplicissimis, versus marginem apice plerumque incrassato sorum singulorum gerentibus. Omnes habitu conforme insignes, ut genus proprium *Ctenopteris* a *Polypodiis* separari merentur. Huc recensimus *P. Celebicum*, *venulosum*, *obliquatum*, *nutans*, *mollicomum*, *fuscatum* et *subfalcatum*."

Blume lists these species as "P." i.e. *Polypodium* species here, and later on in the text describes them all as species of *Polypodium*. The generic name *Ctenopteris* is suggested but not accepted, and is thus invalid by Art. 34 of the International Code of Botanical Nomenclature (1961 ed.), which states: "A name is not validly published (1) when it is not accepted by the author who published it." It is also a true case of a *nomen provisorium*, as shown by the word "merentur," which is a *future* passive, the meaning being that separation as a genus of its own will be deserved [at some future unspecified time]. Such provisional names are also invalid under the same article of the Code: "A name is not validly published . . . (2) when it is merely proposed in anticipation of the future acceptance of the group concerned . . . (so-called provisional name)." In a letter to me some time ago Dr. Holttum said that Mr. Bullock thought that the words "Huc recensimus *P.*

Celebicum," etc. indicated that Blume accepted *Ctenopteris* as a genus, but this is merely a list of the species that belong to the group in the event of its ultimate acceptance as a genus. Naturally, all provisional names have such an indication of the composition of the group, but this in itself does not indicate the acceptance of the group. Thus there is no valid publication of a genus *Ctenopteris* Blume in 1829, nor is there any *Polypodium* sect. *Ctenopteris* Blume, as mentioned by some authors, for Blume did not assign any sectional names.

The next mention of the name *Ctenopteris* is by Presl (1836, p. 177), who divided *Polypodium* into two sections named *Ctenopteris* and *Phegopteris*. There was no intention on Presl's part of segregating from *Polypodium* those species that Copeland calls *Ctenopteris*. On the contrary, *Ctenopteris* was used to distinguish what Presl considered true *Polypodium* from *Phegopteris* (which included the present-day *Phegopteris*, *Dryopteris*, *Thelypteris*, and others). Since *Polypodium vulgare* L., the type of the genus *Polypodium* L., was included in sect. *Ctenopteris* Presl, this section should be typified on the basis of *P. vulgare* L., and sect. *Ctenopteris* Presl becomes a nomenclatural synonym of sect. *Polypodium* by our current rules.

The next appearance of the name *Ctenopteris* is in Kunze's (1846, p. 425) "In filices Javae Zollingerianas aliasque ex herbario Moricandiano observationes." The entire entry is as follows:

"1724. *Ctenopteris** *venulosa* Bl. fl. Jav. p. 132. *Polypodium venulosum* enum. 128.

"Specimina congrua accepi e collectione javanica Kollmanniana. Frons firmula subcoriacea distincte ciliata, laciniis inferioribus diminutis; sed magis oblongis quam ovatis. Hisee planta nostra a phrasi l. l. paululum, nec specie, ut opinior, differt. Sori minus profunde immersis quam in reliquis, imprimis *Ct. papillosa*.

"1725. *Ctenopteris rufescens* Kze.: fronde coriacea, curvata, supra margineque puberula, subtus glabra, rufescente, lanceolata, acuminata pro-gineque puberula, subtus glabra, rufescente, lanceolata, acuminata pro-funde pinnatifida; laciniis oblongis, acuminatis, obtusiusculis, margine re-flexo integerrimis, inferioribus diminutis, subtriangularibus; soris submar-ginalibus, distinctis, modice immersis; rhachi stipiteque brevi s. brevissimo, submarginato fusco-hirtis; caudice repente, fusco-paleaceo-setoso.

"Species *C. fuscatae* Bl. affinis, differt: fronde coriacea, elastice curvata, puberula, nec pilosiuscula, laciniis inferioribus decrescentibus, triangularibus, soris non confluentibus, rhachi stipiteque non villosis, sed hirtis. A *Ct. mollicoma* differt subtus glabra et soris distinctis.

"*Genus insigne, alio loco illustrandum."

I have quoted this entry verbatim, inasmuch as Kunze's publication is not everywhere readily available. This was cited as *Ctenopteris* (Bl.) Kunze by Alston, Ballard, and Holttum in their proposal to conserve *Ctenopteris* as against *Xiphopteris* and *Prosaptia*, but as shown above Blume did not publish a sectional name *Ctenopteris* and consequently he cannot be cited as a parenthetical author.

I have argued in the past that the genus *Ctenopteris* can not be considered published by Kunze. The appropriate part of the Code (Art. 32) indicates that "In order to be validly published, a name of a taxon must . . . be accompanied by a description of the taxon or by a reference (direct or indirect) to a previously and effectively published description of it." There is here certainly no description; Kunze's footnote shows that he intended to publish a figure, and presumably a description also, at some other place, but he never did so. There is no direct reference to *Ctenopteris* Blume nor any discussion of it, but there is an indirect reference, by the citation of "Bl. fl. Jav. p. 132," which refers back to Blume's mention of *Ctenopteris*. It is certain that Kunze did intend to follow up Blume's suggestion about accepting *Ctenopteris* as a genus, Blume did give a brief description, and Kunze did make an indirect reference to it. My present belief is therefore that *Ctenopteris* Kunze is validly published as a genus, by Kunze's acceptance of it and by his indirect reference to a published description.

It is fortunate that *Ctenopteris* can be accepted as validly published, since so many new combinations have already been made using this name. The alternative name, *Cryptosorus* Fée, has never been widely adopted. I do not myself think that *Ctenopteris* is a good genus, for it can be separated from *Grammitis* and *Xiphopteris* only in an arbitrary and unnatural

manner, but there are those who will disagree, and they are free to use *Ctenopteris* if they choose. However, the Committee for Pteridophyta of the International Committee for Nomenclature refused to conserve *Ctenopteris* by a vote of five to two,¹ and so if either *Xiphopteris* or *Prosaptia* are combined with it, these names will have priority. Of course, *Grammitis* Swartz (1801, p. 17) has priority over all of them.

The lectotype of the genus *Ctenopteris* Kunze (not "(Blume) Kunze," as some authors have it) was chosen by Copeland (1947, p. 218) as *Polypodium venulosum* Blume = *Ctenopteris venulosa* (Blume) Kunze, which is the appropriate choice, since this is one of the species referred to the tentative group by Blume and the first species mentioned by Kunze in the validation of the genus. In 1875, John Smith (1875, p. 184) took up the genus *Ctenopteris* in approximately the sense of Kunze, and indicated the type to be *Polypodium trichomanoides* Swartz, but this is impossible, since this species was not one of the original ones of Kunze (or of Blume either).

There is another genus, *Ctenopteris* Newman (1851, App. xxviii), which is based on *Polypodium* sect. *Ctenopteris* Presl. It has the same type as Presl's section, namely *Polypodium vulgare* L., and thus *Ctenopteris* Newman (not Kunze) is a superfluous name, since it has the same type as the valid genus *Polypodium* L.

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¹Cf. *Taxon* **3**: 69. 1954.